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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/749,252

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Yukihisa Takeuchi

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09/08/2003

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EXAMINER

TRA, TUYEN Q

ART UNIT

PAPER NUMBER

2873

DATE MAILED: 09/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/749,252

Applicant(s)

TAKEUCHI ET AL.

Examiner

Tuyen Q Tra

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-30 is/are allowed.
- 6) ☒ Claim(s) 1,3 and 31 is/are rejected.
- 7) ☒ Claim(s) 2 and 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***DETAILED ACTION***

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Takeuchi et al. (U.S. Pat. 6,249,370B1).

a) With respect to claim 1, Takeuchi et al. discloses a display device in Figs. 1, 33 and 34 comprising of an actuator substrate (24) having an actuator element (22, 28), an optical waveguide plate (12), a crosspiece intervening (30) between the optical waveguide plate (12) and the actuator substrate (24) and surrounding the actuator element (22, 28), and a picture element assembly (32) join onto the actuator element (22, 28), wherein the picture element assembly (32), in state of no load, is disposed closely to the optical waveguide plate (12) so as to cause light (70) to be emitted from the optical waveguide plate (12).

b) With respect to claim 3, Takeuchi et al. further discloses wherein the picture element assembly (32) and the optical waveguide plate (12) are allowed to make pressed contact with each other applying a voltage having a polarity opposite to that of a voltage to be applied to the actuator element (22, 28) in order to separate the picture element assembly (32) from the optical waveguide plate (12).

3. Claim 31 is rejected under 35 U.S.C. 102(b) as being anticipated by Takeuchi et al. (U.S. Pat. 5,862,275 A).

Takeuchi et al. discloses in Fig. 1 comprising of an actuator substrate (24) having an actuator element (22, 28), an optical waveguide plate (12), a crosspiece intervening between the optical waveguide plate (12) and the actuator substrate (24) and surrounding the actuator element (22, 28), and a picture element assembly (32) join onto the actuator element (22, 28), wherein the picture element assembly and the optical waveguide plate (12) are brought into pressed contact with one another when a voltage is applied having a polarity opposite to that of a voltage to be applied to the actuator element (22, 28) to separate the picture element assembly (32) from the optical waveguide plate (12) (since the same polarity voltage causes an attraction between two electrodes and opposite polarity of two electrodes will cause these electrodes push each other).

***Allowable Subject Matter***

4. Claims 4-30 are allowed.

The reason for the indication of allowable subject matter is that (claim 4) the picture element assembly, in state of no load, is in pressed contact with the optical waveguide plate so that cause the light to be emitted from the optical waveguide plate; (claims 6, 16) a step of forming a crosspiece precursor, step of forming a picture element assembly precursor, step of joining the actuator substrate and the optical waveguide, step of hardening the picture element assembly, step of hardening the crosspieces precursor; (claim 12) a step of forming picture element, a step of forming a crosspieces precursor, a step of joining the substrate and the optical waveguide plate, a step of hardening picture element assembly precursor, a step of hardening the

crosspiece precursor; (claim 22) a step of forming a crosspiece precursor, step of forming a picture element assembly precursor, step of joining the actuator substrate and the optical waveguide, step of hardening the picture element assembly wherein the step of hardening picture element assembly precursor is carried out, hardening is performed in a state in which said actuator element is displaced, and said picture element assembly precursor abuts against the optical waveguide; (claim 27) a step of forming a first precursor of a first part of a picture element, a step of forming a crosspiece precursor, a step of defining an upper surface of the crosspiece precursor, a step for forming a second precursor of a second part of the picture element assembly, a step for joining an optical waveguide plate and the actuator substrate, a step of hardening the second precursor disclosed in the claims is not found in the prior art.

5. Claims 2 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The reason for the indication of allowable subject matter is that distance between the picture element assembly and the optical waveguide plate in the state of no load is not more than 30 % of a distance of separation between the picture element assembly and the optical waveguide plate in a driving state disclosed in the claims is not found in the prior art.

*Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyen Tra whose telephone number is (703) 306-5712. The examiner can normally be reached on Monday to Friday from 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps, can be reached on (703) 308-4883. The fax number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

tt

August 20, 2003

  
Hung Xuan Dang  
Primary Examiner